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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,426	12/21/2001	Faisal Ishtiaq	CR00245M	1847

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EXAMINER

LE, VU

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/027,426

Applicant(s)

ISHTIAQ ET AL.

Examiner

Vu Le

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 15, 23, 24 and 27 is/are rejected.
- 7) ☒ Claim(s) 7-14, 16-22, 25, 26 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 24-26, 28 are objected to because of the following informalities:

These claims have improper dependency and/or improper statutory reference.

For example:

Claim 24 depends on claim 25, which is improper (dependent on claim 23 is assumed for art rejection);

Claim 25 depends on claim 26, which is improper (dependent on claim 24 is assumed);

Claim 26 calls for a structure claim and depends on claim 25, which is a method claim (claim 26 is assumed a method claim for art rejection);

Claim 28 depends on claim 30, which does not exist and is improper-it's unclear what applicant intends for claim 28 as it calls for a structure claim and dependent on a non-existing claim (claim 28 is assumed a method claim and depends on claim 27 for art rejection purposes).

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent; or (2) a patent granted on an application for patent by another filed in the

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United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English.

**3. Claims 1-6, 15, 23-24, 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Radha et al, US 6,639,943.**

Re claim 1, Radha et al discloses a structure for the utilization of one or more scalability techniques operable to enhance one or more digital video frames of a base layer (8) of a digital video system (figs. 4A-4E, 5A-5C, 6-7, 8A-8D, col. 3, line 46 – col. 9, line 58), comprising:

one or more enhancement layers (fig. 6: 31-32 or fig. 8A: FGS & temporal layers), wherein at least a first enhancement layer of the one or more enhancement layers is coupled to the base layer (fig. 8A) and is operable to be coupled to every other enhancement layer (fig. 8A), and wherein each enhancement layer of the one or more enhancement layers comprises one or more enhanced frames of digital video (inherent, enhancement layer represents enhancement frames of digital video);

a first sequence of one or more enhanced frames, said first sequence operable to be enhanced by selection of one or more scalability techniques (fig. 6: 128; selection between temporal enhancement stream and FGS i.e. SNR enhancement stream. The enhancement streams represent sequences of enhanced frames. The temporal enhancement and FGS enhancement represent different scalability techniques);

and for each of the one or more scalability techniques, a mechanism for determining a number of the one or more enhanced frames of the first sequence that correspond to a scalability technique of the one or more scalability techniques (fig. 6:

18, 28, 30; In Radha et al, the mechanism for determining a number of enhanced frames correspond to a scalability technique is governed by the FGS rate controller 28, scalable video rate controller 18 and user input 30).

Re claim 2, the structure of claim 1, wherein two of the one or more scalability techniques are SNR scalability and temporal scalability (fig. 6: 31, 32, col. 6, lines 56-67- enhancement layer 31 is resulted from FGS i.e. SNR scalability technique, and enhancement layer 32 is resulted from temporal scalability technique, fig. 7: output of 28, which is either temporal enhancement stream or FGS i.e. SNR enhancement stream).

Re claim 3, the structure of claim 1, wherein each enhancement layer of the one or more enhancement layers comprises one or more SNR frames and one or more temporal frames (col. 6, lines 56-67).

Re claim 4, the structure of claim 1, wherein each scalability technique of the one or more scalability techniques is operable to use frames from the one or more enhancement layers (fig. 6; col. 4, line 64 – col. 6, line 67).

Re claim 5, the structure of claim 1, wherein a scalability technique of the one or more scalability techniques is selected based upon one or more criteria, said criteria further comprising one or more of a motion function, a frame separation function, a visual quality gain with a SNR scalability function, and a bitrate of the enhancement layer function (col. 7, lines 8-35).

Re claim 6, the structure of claim 1, wherein the one or more scalability techniques is selected in accordance with a comparison of a metric of the one or more

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scalability techniques to a threshold (col. 7, lines 8-35; in Radha et al, since scalability techniques is selected based on more than one criteria, for example, rate allocation, visual quality, temporal scalability, etc..., and the decision is based on the user input, it is inherent that the user would have relied on a metric of these techniques be compared to a threshold or reference prior to selection of one of the scalability techniques).

Re claim 15, the limitations of claim 15 have been analyzed and rejected w/r to claims 1-5 above.

Re claims 23-24 & 27, these claims are method claims corresponding to apparatus claims 1-5. Hence, the limitations have been analyzed and rejected w/r to claims 1-5 above.

***Allowable Subject Matter***

4. Claims 7-13, 16-22, 25-26, 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Re claims 7-13, 16-21, 25, these claims further define a "metric" to the specificity that is neither anticipated nor rendered obvious by the prior art of record.


Re claims 14, 22, 26 and 26, these claims call for a condition in which "...if an enhancement frame of the one or more enhancement frames is selected and is not an SNR enhancement frame, then a copy of an SNR enhancement frame from a previous layer is replicated to a current layer at the same time instance as in the previous layer[.]" The prior art of record fails to anticipate or renders obvious the limitations as claimed.

### **Contact**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vu Le whose telephone number is 703-308-6613. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 703-305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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